

IROAN PRE-INDUCTION INSPECTION SHEETS FOR 5 TON FAMILY VEHICLES		
DATE:		
MODEL:		
U.S.M.C. NO.	MILES	
JOB ORDER NO.	HOURS	
PRODUCTION NO.		
ENGINE NO.		
TRANSMISSION NO.		
INSPECTOR'S NAME	BADGE NUMBER	SHOP NUMBER
Note: THE FOLLOWING INSPECTION SHEETS ARE DIVIDED INTO SEVEN COLUMNS. THE INSPECTOR SHALL PLACE A CHECK IN THE COLUMN WHICH BEST DESCRIBES THE CONDITION OF THE ITEM BEING INSPECTED. FOR THOSE ITEMS THAT CANNOT BE INSPECTED FOR ANY REASON, THE INSPECTOR SHALL MAKE AN APPROPRIATE ANNOTATION IN THE REMARKS COLUMN. IF THE INSPECTOR FINDS A DEFECT THAT COULD CAUSE INJURY TO THE OPERATOR OR DAMAGE TO THE END ITEM, TESTING WILL CEASE UNTIL THE DEFECT IS CORRECTED OR THE DECISION IS MADE TO INDUCT THE VEHICLE INTO THE IROAN CYCLE.		

PRE-TEST CHECKLIST - ALL MODELS

NOTE: During the walk around inspection, examine vehicle for general appearance including paint, sheet metal rustproofing, workmanship type defects, and miles or damaged equipment. Paint scratches that do not penetrate the top coat are acceptable.

<u>CHARACTERISTICS</u>		S	M	S	A	R	R	M	REMARKS
		A	I	E	D	E	E	O	
		T	S	R	J	P	P	D	
		F	S	V		A	L	I	
		Y	I			R		F	
			N					Y	
			G						
1.	<u>FRONT OF VEHICLE</u>								
a.	Headlights/front marker lights								
	(1) Damage								
	(2) Security of mounting								
b.	Front glad hands								
	(1) Hose, lines, and fitting for damage/looseness								
	(2) Dust cover for damage/missing chain								
c.	Windshield for damage								
d.	Wiper arms and blades								
	(1) Damage								
	(2) Proper mounting								
e.	Lifting shackles								
f.	Self recovery winch (if equipped)								
	(1) Hose, lines, and fitting for damage/looseness								
	(2) Cable for kinks and frays (top row)								
	(3) Cable clevis for damage (lock pin installed)								
	(4) Cable evenly wound and secured								
	(5) Winch guide rollers for proper lubrication								
2.	<u>ENGINE COMPARTMENT</u>								
a.	Cold weather start aide								
	(1) Security of mounting								
	(2) If temperature is below 45 degrees, insure bottle is connected								
b.	Engine mount biscuits for damage/looseness								
c.	Fuel line connections for looseness/damage								
d.	Compressor lines/fittings for looseness/damage								

		S A T F Y I N G	M I S S I N G	S E R V	A R J	R E D E P I R	R E P A L I F Y	M O D I F Y	REMARKS
e.	Fan belts for damage								
f.	Fan rotates freely								
g.	Radiator for leaks/cooling fins for damage								
	and/or obstructions								
h.	Engine oil check cold must be between low l								
	and full								
i.	Radiator level must be 1" below filler neck								
j.	Transmission oil check cold must be at cold								
k.	Electrical connections for looseness/damage								
l.	Air line connections for looseness/damage								
m.	Power steering reservoir cold check to cold mark								
n.	Steering arms and linkages for sufficient								
	lubrication								
o.	Power steering oil cooler .								
	(1) Hose, lines, and fittings for damage/								
	loosness								
	(2) Proper mounting								
	(3) Leaks								
	(4) Cooling fins for damage and or obstructions								
p.	Cab mount biscuits for damage/looseness								
3.	CURB SIDE OF VEHICLE								
a.	Side marker lamps for damage/security of mounting								
b.	Front wheel and tire								
	(1) Condition of tires (cuts, gouges, & uneven/								
	excessive wear)								
	(2) Lug nuts for obvious looseness								
c.	Passenger door								
	(1) Door for ease of operation, fit and sealing								
	(2) Window for ease of operation and damage								
	(3) Side mirrors for damage and security of mounting								

		S A T F Y I N G	M I S S I V E	S R J	A D J P A I R	R D E P A L I F Y	R P P A L I F Y	M D I F Y	REMARKS
d.	Steps for damage and security of mounting								
e.	Air reservoirs								
	(1) Pet cocks for freedom of movement								
	(2) Hoses, lines, and fittings for damage/looseness								
f.	Storage boxes								
	(1) Security of mounting								
	(2) Hinges for damage and looseness								
	(3) Water in boxes								
g.	Hydraulic reservoir								
	(1) Leakage								
	(2) Hose, lines, fittings for loosensess/damage								
	(3) No rust on dipstick/filler neck								
	(4) Fluid level 1/2 way between low and full								
h.	Intermediate/rear wheels and tires								
	(1) Condition of tires (cuts, gouges, uneven and gouges, and excessive wear)								
	(2) Lug nuts for obvious looseness								
	(3) Mud flaps torn/missing/bent hardware								
	(4) Fenders for security of mounting/bent/loose bolts								
4.	REAR OF VEHICLE								
a.	Rear tail lights								
	(1) Damage								
	(2) Security of mounting								
b.	Pintle hook								
	(1) Freedom of movement								
	(2) Security of mounting								
	(3) Lock pin and chain secured.								
c.	Rear glad hands								
	(1) Hose, lines, and fittings for damage/looseness								
	(2) Dust covers for damage/missing chains								
d.	Trailer light receptacle loose/damaged.								
e.	Lifting shackles missing								
f.	Reflectors missing/damaged								

		S A T F Y	M I S S I N G	S E R V	A D J A I R	R E P A I R	R E P L I F Y	M O D I F Y	REMARKS
5.	<u>ROADSIDE OF VEHICLE</u>								
a.	Intermediate/rear wheels and tires								
	(1) Condition of tires (cuts/gouges/uneven/excessive wear)								
	(2) Lug nuts for obvious looseness								
	(3) Mud flaps torn/missing/bent hardware								
	(4) Fenders for security of mounting/bent/loose								
b.	Side marker lamps for damage/security of mounting								
c.	Fuel tanks and lines								
	(1) Security of mounting								
	(2) Fuel lines and fittings for damage/looseness								
d.	Air intake stack for damage/security of mounting								
e.	Air cleaner								
	(1) Obvious damage								
	(2) Hoses/clamps/fittings for looseness/damage								
	(3) Dust cup installed								
f.	Drivers door								
	(1) Door for ease of operation/fit/sealing								
	(2) Window for ease of operation fit/sealing								
	(3) Side mirrors for damage/security of mounting								
g.	Steps for damage/security of mounting								
h.	Cab mount biscuits for damage/security								
i.	Front wheel and tire								
	(1) Condition of tires (cuts, gouges, uneven excessive wear)								
	(2) Lug nuts for obvious looseness								
6.	<u>REAR OF CAB</u>								
a.	Spare tire								
	(1) Damage								
	(2) Security of mounting								
b.	Spare tire/carrier and davit assembly								
	(1) Tire securely mounted								
	(2) Tire davit, winch cable/handle for damage								

		S A T F Y	M I S S I N G	S E R V	A D J	R E P A I R	R E P L	M O D I F Y	REMARKS
7	<u>CAB INTERIOR</u>								
a.	Batteries and cables								
	(1) Fluid level (up to split ring)								
	(2) Posts and cables for looseness/corrosion								
	(3) Batteries for security of mounting								
b.	Glass for excessive scratches								
c.	Seats for ability to adjust and security of mounting								
d.	Instruction and data plates								
	(1) Location and proper installation								
	(2) Correct information on all the plates								
8.	<u>UNDERSIDE OF VEHICLE</u>								
a.	Front Suspension								
	(1) CV boot for damage								
	(2) Hoses, lines, fittings for looseness/damage								
	(3) Shock absorbers for looseness/damage								
	(4) Input/output shafts for mounting, lube								
	(5) Input/output seals for leaks								
	(6) Breather caps for freeplay/damage								
	(7) Front axle for proper level								
b.	Air Reservoirs								
	(1) Hoses/lines/fittings for damage/leaks/chafing								
c.	Transmission								
	(1) Mounting and security of components								
	(2) Leaks								
d.	Transfer case (8 point 5/8 in 1/2 indrive socket)								
	(1) Mounting and security of components								
	(2) Check for proper level								
	(3) Input/output shafts for damage/looseness								
e.	Rear suspension								
	(1) Hoses, lines, and fittings for damage/loosenss								
	(2) Input/output shafts for mounting, lube								
	(3) Input/output seals for leaks								
	(4) Breather caps for freeplay								
	(5) Intermediate/rear axles for proper levels								

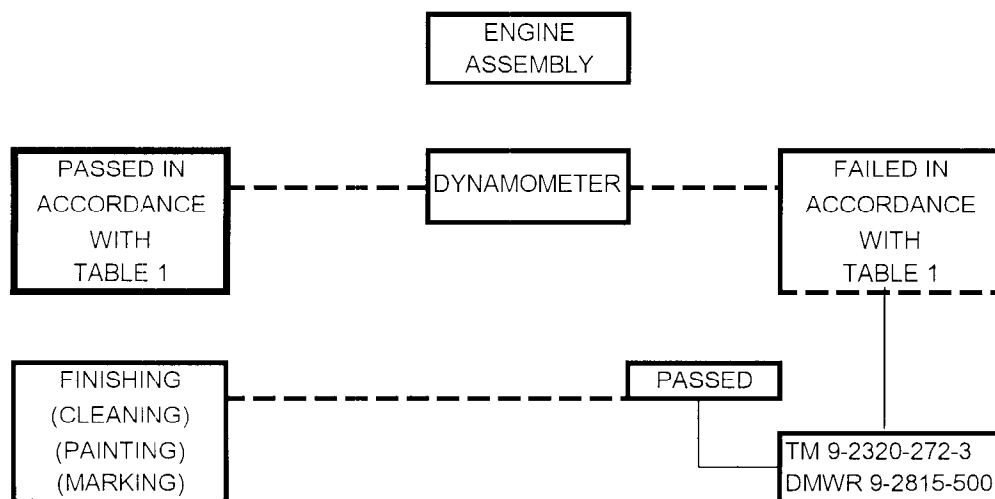
		S A T F Y	M I S S I O N	S E R V I C E	A R J P A I R	R E P A I R	M O D I F Y	REMARKS
9.	TRUCK BODIES							
a.	Cargo bodies							
	(1) Side and end panels for damage							
	(2) Latches, hinges, and pins for damage							
	(3) Cargo tie downs for broken welds							
	(4) Side racks for proper installation							

SOW-06-PMM151-08324A-2/1  
MC-A1b-0T250(ILSD)11-91

## APPENDIX B

TYPE OF VEHICLE		MODEL		CHASSIS SERIAL NO		USMC NO		MILEAGE	
ACTIVITY		YEAR OF MANUFACTURE							
INSPECTION BY AUTHORIZED GOVT REP (SIGN & DATE)									
GROUP	PART	SATISFACTORY	UNSATISFACTORY	GROUP	PART	SATISFACTORY	UNSATISFACTORY	COMMENTS	
01	ENGINE			14	STEERING GEAR				
03	FUEL SYSTEM			15	FRAME				
03	TANK			15	TOWING CONNECTIONS				
03	INJECTORS			16	SHOCK ABSORBERS				
03	METER PUMP			16	SPRINGS				
03	ETHER START			18	FENDERS				
04	MUFFLER & TAIL PIPE			18	HOOD				
05	FAN & WATER PUMP			18	BED				
05	RADIATOR			18	CAB				
06	BATTERY			18	FLOOR				
06	INSTRUMENTS			18	GLASS				
06	GENERATOR			18	INTERIOR TRIM				
06	LIGHTS			18	SEATS & UPHOLSTERY				
06	STARTER			15	BUMPERS				
06	REGULATOR			18	BRUSH GUARD & GRILL				
06	WIRING			22	MIRRORS				
07	TRANSMISSION			22	WIPERS & ARMS				
08	TRANSFER				PAINT				
09	DRIVE SHAFT			33	FORDING KIT				
10	FRONT AXLE			20	WINCH				
11	INTER AXLE			22	VEHICLE ACCESSORIES				
11	REAR AXLE								
12	HAND BRAKE SYS								
12	SERVICE BRAKE SYS								
13	TIRES			ACCEPTANCE BY AUTHORIZED GOVERNMENT REPRESENTATIVE					
13	WHEELS								





## Acceptable Operating Specifications for NHC 250 Cummins Engine

Rated Power -----	Minimum 250 hp at 2100 rpm
IdleSpeed -----	600rpm
Minimum Engine Oil Pressure at Idle -----	10-30 psi at 225oF
Normal Engine Oil Pressure -----	30-70 psi at 1200-2100 rpm
Normal Oil Temperature-----	180-225oF
Normal Coolant Temperature -----	160-200oF
Normal Inlet Fuel Pressure-----	169-183 psi at 2100 rpm
Fuel Inlet Temperature-----	100oF maximum

## DYNAMOMETER RUN-IN SCHEDULE

CUMMINS DIESEL IN-LINE (6) NHC250 - DYNAMOMETER TEST LOG ( )

Job Order No:		Serial No:		Date:				
Test Period	Time in Minutes	Engine RPM	Dyno Load (H.P.)	Smoke Density	Oil Press	Oil Sump Temp	Water Temp	Fuel Press
	5	1000	20					
	30	1575	125					
	30	2100	188					
	30	2100	213					
	15	2100	225					
	5	2100	240 - 5%					
			FINAL CHECK RUN. TORQUE: Output _____					
	1	1500	LB FT (551-685 corrected)					
	10	1000	10					

## T(G) Injector

Normal lube oil pressure, 10 to 30 psi at 225o at idleNormal lube oil pressure, 30 to 70 psi at 1200 to 2100 rpm. (30 psi min

Lube oil sump temperature 240o maximum at 1200 to 2100 rpm.

Normal coolant temperature, 160oF to 200oF

Fuel inlet temperature 100o MAXIMUM. Actual \_\_\_\_\_ o.

Engine rpm: low idle 600; high idle, no load 2195-22 \_\_\_\_\_

## RUN-IN RECORD

Item No.	Test Results	Operator's Initials
	<u>Diesel Fuel Used</u>	
1.	VV-F-800 _____ <u>Oil Used</u>	
2.	MIL-L-21260 15W/40W _____ <u>Brake Horsepower</u>	
3.	Corrected bhp at 2100 rpm _____ (235 lb. ft. min.)	

## RUN-IN RECORD (CUMMINS DIESEL IN-LINE (6) NHC250)

REMARKS:

1. If abnormal noise, describe conditions: \_\_\_\_\_

\_\_\_\_\_

2. Smoothness at idle: \_\_\_\_\_

\_\_\_\_\_

3. Engine malfunction: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Operator \_\_\_\_\_ Date \_\_\_\_\_ Inspector \_\_\_\_\_ Date \_\_\_\_\_

## CORRECTION FACTORS

1. Horsepower Correction Data: \_\_\_\_\_

a. Barometric pressure in HG: \_\_\_\_\_

b. Wet bulb temperature oF: \_\_\_\_\_

c. Dry bulb temperature oF: \_\_\_\_\_

d. Observed HP: \_\_\_\_\_

e. Corrected HP: \_\_\_\_\_

f. Torque output @ 1500: \_\_\_\_\_

g. Torque output corrected @ 1500: \_\_\_\_\_

HICKLIN  
DYNAMOMETER RUN SHEET  
MT-654 TRANSMISSION

SERIAL NO. \_\_\_\_\_ DATE \_\_\_\_\_

OPERATOR \_\_\_\_\_

Fill transmission to operating level with OE/HDC-10 weight oil, conforming MIL-L-2104C

Set test stand drive unit for clockwise rotation.

Set input at 1200 rpm, closed throttle modulator setting, output unloaded,  
transmission through all ranges to fill clutches.

With output stalled, full throttle modulator setting, drive 4(5) range, sta  
transmission until fluid temperature reaches 170°F.

Check and reestablish correct fluid level.

## MT-654CR TRANSMISSION DYNAMOMETER RUN SHEET

Test	RPM	Throttle	Output	Specific Reading:	Actual
Reverse	2000±20	Full	Unloaded	Main Pressure (290-315 psi)	
				Reverse Signal Pressure (290-314 psi)	
				Converter Flow (6.8 gpm min.)	
				Lube pressure (Cooler out) - (15 psi)	

Test	RPM	Throttle	Range	Output	Output Torque (lb. Ft. 1020)	Main Pressure
Stall	1200±20	Full	4(5)	Stall	Minimum at Input Speed (rpm 750)	
					Actual	Required 180-205 psi

Test	RPM	Throttle	Range	Main Pressure		
Idle	600±20	Closed	4(5)	Minimum 160 psi	Actual	
Test						
Full Throttle		Range	Throttle	Output	Shift Point	Req rpm
Upshift		4(5)	Full	Loaded	L-1	375-440
				500-1000	1C-1L	690-830
					1-2	910-975
					2-3	1125-1290
					3-4	1585-1675

Test	Range	Throttle	Output	Shift Point	Req rpm	Actual
Closed Throttle	4(5)	Closed	Loaded	4-3	845-1260	
Upshift			500-1000	3-2	705-900	
				2-1	535-690	
				1L-1C	460-590	
				1-L	225-315	
NOTE: Increase load until downshift occurs.						

Test	Range	Throttle	Output	Shift Point	Req rpm	Actual
Downshift Inhibitor	4(5)	Full	Loaded	4-3	1840-2070	
			500-1000	3-2	1360-1555	
				2-1	970-1180	
				1-L	475-695	

NOTE: Reduce input speed with each gear downshift.

APPENDIX E  
FINAL ROAD TEST CHECKLIST  
ATTACHMENT NO. \_\_\_\_\_

8 December 2003

ALL SAFETY CHECKS MUST BE SATISFACTORILY COMPLETED PRIOR TO ROAD TESTS.

IF NECESSARY, BEFORE PERFORMING ALL TESTS AND CHECKS, WIPE DOWN  
COMPONENTS WHERE GREASE, OIL, OR DIRT COULD POSSIBLY FORM.

THE FOLLOWING ITEMS SHALL BE CHECKED DURING THE VEHICLE STATIC TEST

WITH THE VEHICLE ENGINE OPERATING

LOW AIR LIGHTBUZZER WILL REMAIN ON UNTIL SYSTEM PRESSURE REACHES 60 PSI.

DO NOT JUMP START VEHICLE WITH LIGHT SWITCH ON.

	S	M	S	A	R	R	M		I
	A	I	E	D	E	E	O		N
	T	S	R	J	P	P	D		S
	F	S	V		A	L	I		P
	Y	I			I		F		
	G	N			R		Y		
								REMARKS	
1. Check the following guages for correct readings									
a. Tachometer reading 600+50 rpm at idle									
b. Engine oil pressure, minimum of 10 psi at idle									
c. Low air buzzer/light									
d. Air cleaner restriction indicator									
e. Battery guage registers in the green									
f. Fuel guage registers equivalent to tank level									
g. Engine coolant 175 to 195o F (after road test)									
h. Transmission oil temperature 120 to 220oF to 220o F (after road test)									
i. Primary air pressure 90 to 128 PSI									
j. Secondary air pressure 90 to 128 PSI									
2. Cab controls (can be done on raod test)									
a. Windshield washer									
b. Windshield wipers left and right									
c. Heater/defroster fan									
d. Heater									
e. Defroster ducts for air									
f. Transfer case									
(1) Shift level for ease of operation									
(2) Operates in high and low									
g. Horn for proper operation									
h. Brake operation (does not pull or stall when applied for a quick stop)									
(1) Park brake holds with transmission in gear									
(2) Park brake release operates properly									
(3) Service brakes operate properly									
(4) Unusual noises									

	S A T F Y	M I S S I N G	S E R V	A R J P A I R	R E P A L I F Y	M O D I F Y	REMARKS	I N S P
i. Transmission operation								
(1) Drive (all gears) and reverse								
(2) Transmission shifts smoothly								
(3) Unusual noises								
j. Accelerator								
(1) Accelerates smoothly								
(2) Doesn't stick or bind								
k. Steering								
(1) Operates smoothly								
(2) Does not wander or pull								
3. Lights (operational)								
a. Dash panel								
b. Shift selector								
c. Headlights-high and low beam								
d. Clearance/side marker lights								
e. Turn signals left/right and front/rear								
f. Emergency flashers								
g. Front axle engagement								
h. Blackout lights								
i. Tail lights, brake lights, left/right								
4. Road Test								
a. Unusual noise								
b. Excessive vibration								
c. Transmission fluid hot check (approx. 180o) level on dip stick between add and full								
5. Exhaust System (loose stack/misalignment/ missing bonnet)								
a. Excessive smoke								
b. Vibration								
6. Major components								
a. Leakage								
7. Paint								
a. Flaking paint								
b. Scratches that penetrate the top coat								
8. Sheet metal damage (cab, hood, body, etc.)								
9. Miscellaneous								
(Items not previously addresses on Final Road Test Check List)								



(1 Data Item)

OMB No. 0704-0188

Designed using Perform Pro, WMS/DOR, Aug 5

17. PRICE GROUP

18. ESTIMATED  
TOTAL PRICE

15. TOTAL	→	0	1	0
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**G. PREPARED BY**

H. DATE
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**I. APPROVED BY**

J. DATE

DD FORM 1423-1, AUG 96 (EG)

PREVIOUS EDITION MAY BE USED.

Page of Pages

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